Name : Dakshana Murthy S

Reg No : 192124020

Code :CSA0976

Course : Programming in java

Slot :A

ASSIGNMENT-4

1.

```
import java.io.*;
class FileStats
{
	public static void main(String[] args)
	{
	String fileName = "File1.txt";
	int wordCount = 0;
	int charCount = 0;
	int lineCount = 0;
	try (BufferedReader br = new BufferedReader(new FileReader(fileName)))
		{
		String line;
		while ((line = br.readLine()) != null)
			{
			lineCount++;
			String[] words = line.split("\\s+");
			wordCount += words.length;
			charCount += line.length();
		}
	}
		catch (IOException e)
		{
		e.printStackTrace();
	}
	System.out.println("Word count: " + wordCount);
	System.out.println("Character count: " + charCount);
	System.out.println("Line count: " + lineCount);
	}
}
```

Output:

Word count :6
Character count:40
Line count:3

2.

```
import java.io.*;
class Customer
{
	private int accountNo;
	private String accName;
	private int balance;
	public Customer(int accountNo, String accName, int balance)
	{
	this.accountNo = accountNo;
	this.accName = accName;
	this.balance = balance;
	}
	public synchronized void deposit(int amount)
	{
	balance += amount;
	System.out.println("Amount " + amount + " deposited. New balance is " + balance);
	notify();
	}
	public synchronized void withdraw(int amount)
	{
	if (balance < amount)
		{
		System.out.println("Insufficient balance. Waiting for deposit...");
		try
			{
			wait();
		}
			catch (InterruptedException e)
			{
			e.printStackTrace();
		}
	}
	balance -= amount;
	System.out.println("Amount " + amount + " withdrawn. New balance is " + balance);
	}
```

```
}
class Main
{
	public static void main(String[] args)
	{
		int i=12345;
		String s="Saran";
		int amount=1000;
	Customer customer = new Customer(i,s,amount);
		System.out.println("Account holder name :"+s);
		System.out.println("Account balance :"+amount);
	Thread withdrawThread = new Thread(() -> {customer.withdraw(1100);});
	Thread depositThread = new Thread(() -> {customer.deposit(200);});
	withdrawThread.start();
	depositThread.start();
	}
}
```

Output:

```
Account holder name: Dakshana Murthy S
Account balance:1000
Insufficient balance.waiting for deposit..
Amount 200 deposited.New balance is 1200
Amount 1100 withdrawn.New balance is 100
```

3.

```
import java.io.*;
import java.util.*;
class FizzBuzz
{
	public static void main(String arg[])
	{
		int i;
		String a[]=new String[1000];
		Scanner s=new Scanner(System.in);
		System.out.print("Enter N value :");
		i=s.nextInt();
		for(int j=1;j<=i;j++)
		{
			if(j%3==0 && j%5==0)
			{
				a[j-1]="FizzBuzz";
			}
```

```
                else if(j%3==0)
                {
                        a[j]="Fizz";
                }
                else if(j%5==0)
                {
                        a[j]="Buzz";
                }
                else
                {
                        a[j]=Integer.toString(j);
                }
        }
        System.out.println("List :");
        for(int j=1;j<=i;j++)
        {
                System.out.println(a[j]);
        }
    }
}
```

Output:

Enter N value :10

List :

1

2

Fizz

4

Buzz

Fizz

7

8

Fizz

Buzz

4.

```
import java.io.*;
import java.util.*;
class StringShifts
{
	public static boolean canBecomeGoal(String s, String goal)
	{
	if (s.length() != goal.length())
		{
		return false;
	}
	for (int i = 0; i < s.length(); i++)
		{
		if (s.equals(goal))
			{
			return true;
		}
		s = s.substring(1) + s.charAt(0);
	}
	return false;
	}
	public static void main(String[] args)
	{
	String s1;
	String goal;
		Scanner s=new Scanner(System.in);
		System.out.print("S :");
		s1=s.nextLine();
		System.out.print("goal :");
		goal=s.nextLine();
	System.out.println(canBecomeGoal(s1, goal)); // false
	}
}
```

Output:

S:abcde

goal:cdeab

True

S:abcde

goal:abcde

False

5.

```
class PrimeExample implements Runnable
{
	@Override
	public void run()
	{
		int i, m = 20, flag = 1;
		for (i = 1; i <= m; i++)
		{
		if (i <= 3)
			{
			System.out.println(i + " is prime number");
			continue;
		}
			else
			{
			flag = 1;
			for (int j = 2; j < i; j++)
				{
				if (i % j == 0)
					{
					flag = 0;
					break;
				}
			}
			if (flag != 1)
				{
				System.out.println(i + " is not prime number");
			}
				else
				{
				System.out.println(i + " is prime number");
			}
```

```
                }
                }
        }
}
class prime
{
        public static void main(String args[])
        {
                try
                {
                PrimeExample p1 = new PrimeExample();
                Thread t1 = new Thread(p1);
                t1.start();
                }
                catch (Exception e)
                {
                System.out.println(e.getMessage());
                }
        }
}
```

Output:

1 is prime number

2 is prime number

3 is prime number

4 is not prime number

5 is prime number

6 is not prime number

7 is prime number

8 is not prime number

9 is not prime number

10 is not prime number

11 is prime number
12 is not prime number
13 is prime number
14 is not prime number
15 is not prime number
16 is not prime number
17 is prime number
18 is not prime number
19 is prime number
20 is not prime number